

Poll Creator

Poll Creator

Build a full-stack polling/voting application.

Overview

| Attribute | Value |
|------------|-------------|
| Level | Intern |
| Stack | Fullstack |
| Time Limit | 4-5 hours |
| Difficulty | Easy-Medium |

Problem Statement

Create a poll application where users can create polls, share them, and collect votes. Build both the API and React frontend.

Requirements

Backend Features

- ☐ Create poll with multiple options
- ☐ Get poll details
- ☐ Submit vote
- ☐ Get poll results
- ☐ Prevent duplicate votes (by session/IP)
- ☐ Close poll

Frontend Features

- ☐ Create poll form
 - ☐ Poll voting interface
 - ☐ Live results display
 - ☐ Share poll link
 - ☐ Results visualization
-

API Specification

Create Poll

POST /api/polls

Request:

```
{
  "question": "What's your favorite programming language?",
  "options": ["JavaScript", "Python", "Go", "Rust"],
  "allowMultiple": false,
  "expiresAt": "2025-12-18T00:00:00Z"
}
```

Response (201 Created):

```
{
  "id": "poll_abc123",
  "question": "What's your favorite programming language?",
  "options": [
    { "id": "opt_1", "text": "JavaScript", "votes": 0 },
    { "id": "opt_2", "text": "Python", "votes": 0 },
    { "id": "opt_3", "text": "Go", "votes": 0 },
    { "id": "opt_4", "text": "Rust", "votes": 0 }
  ],
  "totalVotes": 0,
}
```

```
"createdAt": "2025-12-11T10:30:00Z",  
"expiresAt": "2025-12-18T00:00:00Z",  
"shareUrl": "/poll/poll_abc123"  
}
```

Get Poll

```
GET /api/polls/:id
```

Submit Vote

```
POST /api/polls/:id/vote
```

Request:

```
{  
  "optionId": "opt_2"  
}
```

Response:

```
{  
  "success": true,  
  "poll": {  
    "id": "poll_abc123",  
    "question": "What's your favorite programming language?",  
    "options": [  
      { "id": "opt_1", "text": "JavaScript", "votes": 15, "percentage": 30 },  
      { "id": "opt_2", "text": "Python", "votes": 20, "percentage": 40 },  
      { "id": "opt_3", "text": "Go", "votes": 10, "percentage": 20 },  
      { "id": "opt_4", "text": "Rust", "votes": 5, "percentage": 10 }  
    ],  
    "totalVotes": 50  
  }  
}
```

```
}  
}
```

Close Poll

POST /api/polls/:id/close

Wireframe

Create Poll

Create a Poll

Question:

[What's your favorite programming language?]

Options:

1. [JavaScript] [X]

2. [Python] [X]

3. [Go] [X]

4. [Rust] [X]

[+ Add Option]

☐ Allow multiple selections

Expires: [2025-12-18] (optional)

[Create Poll]

Vote on Poll

What's your favorite programming language?

☐ JavaScript

☒ Python

☐ Go

☐ Rust

[Submit Vote]

Results

What's your favorite programming language?

50 total votes

JavaScript 30% (15)

Python 40% (20)

Go 20% (10)

Rust 10% (5)

Share: [[<http://localhost:3000/poll/abc123>](http://localhost:3000/poll/abc123)] [Copy]

Getting Started

Backend

```
mkdir poll-creator && cd poll-creator
mkdir backend && cd backend
npm init -y
npm install express cors
```

Frontend

```
cd ..
npm create vite@latest frontend -- --template react
cd frontend
npm install axios react-router-dom
```

Data Model

```
// Poll
{
  id: "poll_abc123",
  question: "What's your favorite programming language?",
  options: [
    { id: "opt_1", text: "JavaScript", votes: 15 },
    { id: "opt_2", text: "Python", votes: 20 }
  ],
  allowMultiple: false,
  totalVotes: 35,
  voters: ["session_xyz", "ip_123"], // for duplicate prevention
  status: "active", // active, closed
  createdAt: Date,
  expiresAt: Date
}
```

Evaluation Rubric

| Criteria | Weight | Excellent (5) | Good (4) | Acceptable (3) |
|---------------------|--------|----------------------|--------------|----------------|
| Backend API | 30% | Full API + dup check | Basic voting | Create only |
| Frontend UI | 30% | Complete + results | Basic voting | Form only |
| Integration | 20% | Smooth, shareable | Works | Basic |
| Code Quality | 20% | Clean both sides | Organized | Works |

Bonus Points

- ☐ Real-time vote updates (WebSocket)
- ☐ Anonymous vs authenticated voting
- ☐ Poll templates
- ☐ Embed code for external sites

Do not share this problem publicly.